

NEW FACTS ABOUT EGYPT'S MOST ANCIENT PEOPLE

First Relics of the Everyday Life of the Predynastic Period Found at Abydos Last Winter—Secrets of Egypt's Priesthood Revealed by the Discoveries Made in Excavating at the Osireion

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Abydos is a rich storehouse of past ages, a region of constant surprise, the sounding line by which to measure the depths of ancient Egyptian civilization. By its location Abydos is one of the remarkable sites of Egypt; sheltered by cliffs 800 feet in height, situated midway in the valley, at places does the cultivation come so near to the edge of the mountain plateau—a fertile stretch of garden land from the edge of the desert area of temples, necropolises and the ancient settlements to the Nile six miles distant. A natural stronghold, Abydos or Thinis, became the cradle of the race. Here came the primitive settlers of the Neolithic period. Prof. Petrie says: "We see Paleolithic man scattering his massive flint weapons until the age of Nile mud (beginning about 7,000 B. C.) made agriculture possible and a Caucasian race ousted the Paleolithic folk."

At this remote period the Delta was part bay, part marsh and swamp. The winding course of the Nile within its ribbonlike strip of green for a thousand miles to the Mediterranean Sea broadened the wild, rank, growth of the marshy Delta by seven outlets into a fan shaped district 100 miles in depth, resembling a gigantic lotus. This valley, a prize rich of promise, bounded on the right hand and on the left by naked limestone cliffs and beyond on either hand by the unfriendly desert, was singularly isolated and protected by that isolation.

Entrance seems to have been gained at the two corners of the Delta. The Libyans, a white race indigenous to North Africa, apparently came in at the western corner and some dozen generations later a prehistoric Semitic race forced its way across the dangerous intervening desert by the eastern corner and united with the earlier Neolithic occupants to form the dynastic Egyptians. There was also another source of population. In spite of the barrier of the cataracts a dark race filtered in from the south in ever increasing numbers, and their fusion with the Libyans produced a non-progressive population whose descendants still occupy the Nubian district and are but little changed in the last day.

Hitherto our knowledge of predynastic Egypt has been gathered by examining thousands of burials along the margin of the desert in upper Egypt, and especially at Abydos, where all varying types have been excavated. As far as other remains were concerned the prehistoric man might have perpetually dwelt in his "eternal abode" sleeping upon his skin or plaited mat of reeds, surrounded by his pots and pans, bone tippe harpoons, flint tipped weapons for the chase and stone weapons for his defense. All his articles of luxury too are about him, toilet accessories and remains of food, drink and ornament; clay models also of every object dear to him, especially boats, and many little portrait statues in bone, ivory and wood of himself, his family and his enemies. The glacial body had returned to dust here his skeleton, with the knees drawn up and hands before the face, appeared indeed to occupy the only home he seemed to have prepared.

Prof. Breasted, in his "History of Ancient Egypt," wrote in 1905: "These burials furnish the sole contemporary material for our study of the predynastic age." That statement was a self-evident fact and was accepted as the final word, now, when all hope of further light had been abandoned, a remarkable disclosure of the every day life of that far period occurs at Abydos.

The importance of the discovery by the Egypt Exploration Fund at this famous site this winter of a predynastic settlement can scarcely be overestimated. A successful work in the necropolis was discontinued late in January on the arrival of the director, M. Naville. The full staff and working force of the camp was then required for the clearance of the subterranean temple of Merenptah. While tracing the temenos wall of the double enclosure of Seti's Temple and the Osireion this predynastic settlement was found. Prof. Whittemore writes:

"It is a place occupied by a colony of predynastic Egyptians. Beneath a few inches of clean, wind blown sand lies a thick, dark stratum composed of sand mixed with burnt wood, fragments of pottery, animal bones and decayed vegetable matter. This dark layer is the remains of the every day life of the colony. Apparently the inhabitants did not trouble to sweep out their encampment, but like most primitive peoples allowed rubbish to accumulate around them."

"Of particular interest are two great hearths, each about twenty feet in diameter. The first must have been lighted time after time, to judge from the thickness of the charred remains. Despite a careful search no trace of huts of any kind was found, and these if they existed must have been of perishable material. The remains, however, give a fair idea as to the daily occupation of these people."

"That they spent much of their time in the manufacture of flint implements is apparent from the vast number of chips and finished instruments found. These latter include arrow heads, saws, borers, scrapers and knives. The most common are the small borers which occur in such large numbers that some industry requiring their continual use must have been carried on here. One use doubtless was for piercing skins for clothes after the hides had been cleaned with the flint scrapers. Saws were also very plentiful and their polished edges bear witness to their active use."

"Perhaps the most notable object found in the settlement is an impression on clay of a cylinder seal. It shows four animals one behind the other, one to judge by its trunk, can hardly be other than an elephant. Knowledge of metal must have been very limited among these people; we found only one small chisel of copper."

"They lived partly on grain, which they ground on hard, flat slabs of stone. Meat must have formed their staple diet, to judge by the enormous quantities of bones, all cracked to extract the marrow. In one corner of the settlement a remarkable find was made; it consisted of twenty-three very large vases, each sup-

ported by vertical fire bricks. They were packed close together in two rows of twelve and eleven respectively and surrounded by a wall. In between them were masses of charred logs. It was clear that whatever was placed in these vases was to be kept at a slow heat for a very long period. Prof. Whittemore suggests that the large jars so carefully packed and heated may have been used for the manufacture of beer. This appears probable, as we know from Dr. Reisner's researches that barley was cultivated by the predynastic Egyptians. Beer was the favorite drink of the Egyptians at all times, and even the deceased in their state of bliss could not get on without beer any more than without bread. We know little of its preparation. All accounts, however, agree that it was made from barley, or as it was called in the inscriptions, the corn of upper Egypt."

The secret of preparing it from barley by simple fermentation produced the beverage called heqa on the monuments of the fourth dynasty.

An equally interesting discovery was the find of what Prof. Whittemore calls predynastic kilns of uncertain use. May they not be predynastic smelting pits? Just as in the Wady Ahmar in Sinai the situation was favorable for a smelting place. The wind, always blowing at Abydos, would give a good draft. The pits at Sinai are sunk from eighteen to twenty-five inches deep, and stones were

dominion over the most obdurate materials. The nation revelled in an exuberance of attainment.

The sequence between the earliest simple burial with only a jar or two, and the many chambered tomb crowded with objects is obvious and marks a natural growth in material resources that we expect from a settled community. But from the royal tombs of the first dynasty, with their manifold articles of art and luxury and the mud brick mastabas of the nobility of the early dynasties to the stone pyramids at Gizeh and stone mastabas marking the great creative period of Egyptian culture all within a second cycle of a thousand years, has not been credible even to historians till the last decade. The archaeologist was the first to recognize that the magic of the transforming power was metallurgy.

With metal chisels, saws, files and drills the dynastic Egyptian attacked stone quarries as his ancestors had, and in clay pits and his achievements make Egypt still the wonder of the world. In the light of present knowledge we see in the mud brick mastaba excavated this winter at Abydos the model for the earliest known stone pyramid, that at Zawiet el-Arrian of the third dynasty, where Dr. Reisner's expedition is now at work. The Zawiah pyramid was partially cleared in 1837 by Vyse and Perring during their great operations on the Gizeh plateau, where this cemetery com-



DAMAGED BURIAL VAULT OF THE PTOLEMAIC PERIOD.

built into a rough low wall around the edge of the holes. The size of these pits varies, some being a few feet across, others larger. This description applies equally well to the Abydos pits.

Wood was certainly at hand, for remains of a garden in part of a large tomb of the nineteenth dynasty shows the mud circle in which palms are still planted. It was probably after the burning of some forest that copper and silver were found prepared by fire and this method of extraction remained in use. Egyptians used wood as reducers and made use of siliceous, calcareous, or ferruginous material in smelting. The crucibles consist of quartzose sand bound with clay partly vitrified by the high temperature to which they have been subjected.

The discovery of copper to the predynastic Egyptian was as important to that era as the application of steam to modern industries in our time. It is very difficult after the first 500 years of practice in the use of metals to follow the rapid progress in the national development. The repressed vitality of a cycle of a thousand years all at once asserted



TYPE OF VERY EARLY EGYPTIAN BUILDING.

SUCH A JOKE IT IS TO LEARN HOW TO FLY

Aviation is regarded by most people as an extremely hazardous occupation. That this idea is wrong is easily demonstrated by a visit to any one of the large aviation fields where flying schools are conducted. Thus at one such school, of the fourteen students who obtained their aviator's licenses last summer not one was injured, although numerous accidents occurred.

The pupils at this school included two women, an Italian Count, French and German chauffeurs, a woodworker, a trick bicyclist, a tight rope walker and two college men. The majority of the students were, under the impression that flying was an easy way of making money. That idea seems humorous to experienced aviators, who say that for every man who has ever paid expenses in aviation there are hundreds who have spent all their own money and all they were able to raise among their friends.

Regardless of former occupation, the new students as a rule confidently believe themselves to be the world's greatest undiscovered aviator. When they consider that belief in the instructor it usually means an extra session on the beginner's "grasscutter." This machine, which is heavy and underpowered, is meant only for running along the ground, so that the student may become proficient in manipulating the controls. It is particularly disliked because, besides being hard to steer on the ground, it has a disagreeable way of throwing oil back on the operator.

It is a source of amusement to the older pupils to see a new student begin his course. His first lesson consists in sitting in the machine while it is tied to a fence and working the controls while the instructor is turning. The other students see to it that the engine has an additional supply of castor oil, and then enjoy the sight of the beginner as he becomes drenched in the flying oil, which escapes from every joint of the engine.

When it comes to running along the ground the trouble begins. A monoplane of the Blériot type runs on two wheels attached to the body of the machine by casters, so that they can move from side to side. The machine is steered by the rear rudder, but does not respond quickly to each movement of the rudder, except when going at full speed. Now there are very few beginners who care to run along the ground at a thirty mile clip the first time they are out. The fact that the machine does not respond quickly to the rudder when going slowly is apt to give the operator an idea that he is working it the wrong direction, and often he will turn the rudder the opposite way, making matters a great deal worse.

It is a common sight to see a beginner racing along swerving suddenly to the right or left, making turns which would unnerve an automobile racing driver with their sharpness or bounding over stones and ditches in a manner which looks nothing short of suicidal. Usually before any damage occurs the student will stop the engine, but there have been times when that was the last thing thought of.

As a rule few accidents occur until the students begin to hop along over the ground. This is the next step, and is likely to be an expensive one if the learner does not pay strict attention to the advice of the chief pilot or instructor. Perhaps the idea which is oftenest impressed on the beginner is to make slow movements of the control. If the control is moved too quickly it is likely to cause trouble. This was well illustrated one morning when one of the students started out to make his first jump.

Mr. X had been making excellent progress and was told by the chief instructor at the end of an afternoon session that he would be allowed to make a short flight on the next lesson. This was a great event and caused him to bring to the field all of his friends that he could rout out



WAGONS WAITING TO BE FILLED AT THE EXCAVATIONS.

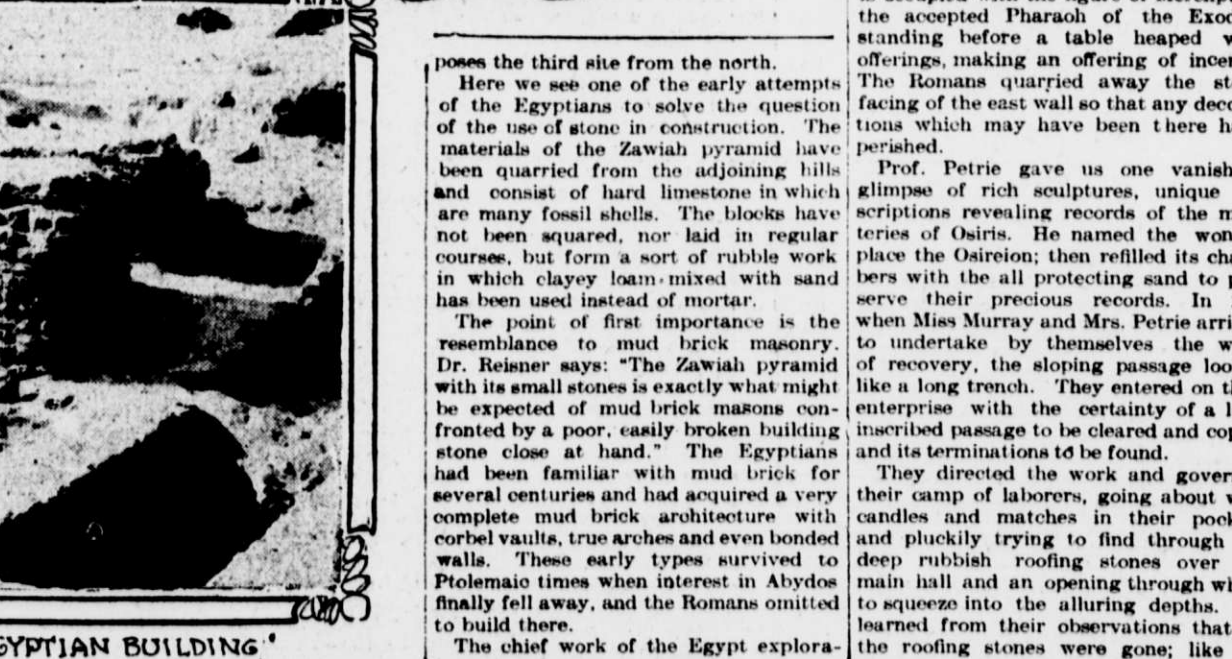


PREDYNASTIC GRAVE WITH VASES IN POSITION.



ABYDOS, OSIREION HALL, WEST WALL, NORTH END.

MUD FIGURE OF OSIRIS.



TYPE OF VERY EARLY EGYPTIAN BUILDING.

poses the third site from the north.

Here we see one of the early attempts of the Egyptians to solve the question of the use of stone in construction. The materials of the Zawiah pyramid have been quarried from the adjoining hills and consist of hard limestone in which are many fossil shells. The blocks have not been squared, nor laid in regular courses, but form a sort of rubble work in which clayey loam-mixed with sand has been used instead of mortar.

The point of first importance is the resemblance to mud brick masonry. Dr. Reisner says: "The Zawiah pyramid with its small stones is exactly what might be expected of mud brick masons confronted by a poor, easily broken building stone close at hand." The Egyptians had been familiar with mud brick for several centuries and had acquired a very complete mud brick architecture with corbel vaults, true arches and even bonded walls. These early types survived to Ptolemaic times when interest in Abydos finally fell away, and the Romans omitted to build there.

The chief work of the Egypt exploration

fund this season is the continued excavation of the Osireion. The temple was discovered and given a trial working by Prof. Petrie. So far as then examined a subterranean edifice with a sloping passage was located leading in the direction of Seti's temple, some 200 feet distant. The sandstone pavement of the great hall was reached 4 feet below the surface of the desert.

This stately gallery measured 34 feet in length, 15 feet in width, with a height of 17 feet. There were three doorways; one leading to a south chamber, one to the sloping passage on the east, and one to a north chamber. The west wall is divided into three parts vertically; the portion to the left contains a colossal scene of the "Vivification of Osiris" by the

hawk-headed Horus; the central portion registers the chapter of "Knowing the names of Osiris," the right hand portion is occupied with the figure of Merenptah, the accepted Pharaoh of the Exodus, standing before a table heaped with offerings, making an offering of incense. The Romans quarried away the stone facing of the east wall so that any decorations which may have been there have perished.

Prof. Petrie gave us one vanishing glimpse of rich sculptures, unique inscriptions revealing records of the mysteries of Osiris. He named the wonder place the Osireion; then refilled his chambers with the all protecting sand to preserve their precious records. In 1902, when Miss Murray and Mrs. Petrie arrived to undertake by themselves the work of recovery, the sloping passage looked like a long trench. They entered on their enterprise with the certainty of a long inscribed passage to be cleared and copied and its terminations to be found.

They directed the work and governed their camp of laborers, going about with candles and matches in their pockets and plucking trying to find through the deep rubbish roofing stones over the main hall and an opening through which to squeeze into the alluring depths. We learned from their observations that all the roofing stones were gone; like the

placed stump finally caused Houper to

fall violently, and to add insult to injury the rear wheel of the machine ran over him. Then like some wild animal suddenly let free the machine started on a rampage.

From side to side it raced, bounding over stones and narrowly escaping obstacles, but not going fast enough to get out of the ground. When it reached the side of the field where the mechanics were they tried to catch it, but in vain. Round and round the field it raced, and every time it passed one of the men it seemed to take down. The men were exhausted and bruised when the propeller hit an obstruction, causing it to break and thus stop the machine.

Indian Girls as Servants.

From the Baltimore American.
"The best domestic servants that we can get in our isolated region are Indian girls," said Mr. George A. Hurley, of Flagstaff, Ariz. "These girls, fairly skilled and moderately industrious, could scarcely be rated ideal, but on the whole, they are satisfactory, and in the absence of other help we are extremely glad to get them. Their efficiency is the result of training in the Indian schools of the reservations, and when one stops to consider the element of English education and the training they should be as clever and valuable as they are."

"My temperament these Indian girls are inclined to reticence. They do what is asked of them uncomplainingly, but they rarely smile and never joke and are not demonstrative in any way, with the exception of the occasional laugh at Uncle Sam's employ, who was their school superintendent or teacher, comes around to make her periodical visits in order to see how the girls who are at service are getting on. Whenever a visitor arrives the particular Indian maid who greets her gives her a welcome that is exceedingly cordial and seems to cherish a real sentiment of deep gratitude for the one who first taught them the elements of English education and gave them their first lessons in domestic science."

wall facing, they had been quarried away by the Romans. One cracked lintel alone remained. That and Strabo's description show how the vaulted passage existed spanned by single stone beams, a truly imposing structure.

In this season's excavation attention has been so far mainly concentrated on the long, sloping passage which leads from the great hall. The work of clearing away the fifty feet of rubbish has been tremendous and even more laborious than was estimated. The nature of the desert is that after removing from two to four feet of loose wind blown sand and hard marl is encountered. As the excavation deepens the high winds bring down sometimes a half ton of sand and stones in a fall.

While Miss Murray was copying inscriptions in the great hall two wind days silted the sand up to the level of the roof, though the passage had been cleared to the floor. She humorously described her experience in a sentence: "To sit in a deep pit under an irregular but continuous fire of small stones with the chance of a big stone coming down too is an experience more amusing to look back upon than to endure."

Until the present excavation no record had been made beyond the one massive lintel stone twelve feet in length, in position over the entrance to the passage. This stone was painted in black on gray ground. It was probably the intention of the builders to engrave the hieroglyphs, but it was left merely sketched in. The names which are determined with the sign of a star are those of the deities and are interesting, as none have hitherto been found of the time of Merenptah. The earliest known are in the tomb of Seti, and in the Ramesseum of the reign of Rameses II, these now continue the consecutive series for another reign. This would indicate that the whole roof of the passage was covered with the names of stars and possibly with astronomical data.

Prof. Whittemore describes the sloping passage as "about ten feet wide, finely sculptured on either side with the seventeenth and nineteenth chapters of the Book of the Dead. Over the inscriptions stand vignettes beautifully cut. In one King Merenptah is seen sitting before a table on which stand six small models of animals. In another the King is entering the judgement hall of the forty-two witnesses."

"After descending gradually for some forty feet the passage again becomes horizontal and wide areas open out to right and left. How far these areas extend is as yet unknown, but certain surface indications suggest that they run for a considerable distance. The passage does not stop at the point where these areas join it, but proceeds in its original direction. Here there is a second vast lintel and two great roof blocks behind it."

The account ceases at the moment the doorways were discovered. The question is, What may be behind those doors when opened? We are very anxious to know. Sir Gaston Maspero, director-general of the Service des Antiquités, paid Prof. Naville a visit and was so much impressed with the work that he anticipated as great discoveries as at Deir el-Bahari. Governmental protection is assured during the summer when the camp of the Egypt Exploration Fund is closed.

It is evident that we have a great inheritance in the Osireion. As the work proceeds one is more and more vividly reminded of Strabo's words when he described a labyrinth of rooms and passages beneath the Memnonium, or Seti's Temple. To-day we may all stand among the initiated of Egypt's priesthood. We really know more of the esoteric belief of ancient Egypt than the average Egyptian in ancient times even knew concerning his own faith.

It was only to be expected that one day should be found at Abydos this special plan of worship of its ruling deity, the "Great Judge of the Dead." That this sanctuary should be a part of the temple dedicated to the worship of the dead, with special apartments for the celebration of the Osirian rites, is very near to the truth. A line drawn through the axis of Seti's temple, the Osireion and the desert pylon of the temenos wall continues to the royal tombs. Here, close to the heavenly celestial axis, the tomb of Osiris, were found four buried figures of Osiris moulded from mud.

This is the Osiris of vegetation and generation referred to in the Greek legends. He is the one who made life without him, the Lord of Life. And in a hymn of the time of Rameses IX, Osiris is worshipped as the great form of life whom all praise, thou who stretchest out thine arms who sleepest on thy side who liest on the sand, the lord of the ground, the earth lies on children and they live on thy breast; they subsist on the flesh of thy body. So sang the Egyptian psalmist of the twentieth dynasty.

The revival of Osiris as Lord of the Sand is most picturesque as observed at Abydos. Within the beautiful temple of Seti, to which the Osireion leads, is the chamber of the resurrection of the god. Here the ceremony must have been performed, as the presence of the cow goddess Shenty was essential, and in this chamber she presides over the resurrection of the dead. A statue of the goddess was made in the likeness of the god Osiris in his mummified form wearing the high white crown of upper Egypt, enclosed in a black copper reliquary.

On the 12th of Khoiak four hin of sand and one hin of barley were put into the statuette, which was then laid in the "garden" with rushes over it and under it. The garden was in the "House of Shenty" and was made of stone four square and resting on four pillars. The statuette was decorated with a necklace and a blue flower laid beside it. On the 21st of Khoiak the sand and barley were removed and dry incense substituted and the statuette was brought out and laid on its bier and buried in a small shrine of a single block of stone.

Although the ceremony was observed in other homes, special deference was paid to the Abydos festival as the veritable abode of Osiris, and a simpler symbolism was followed elsewhere. In Buxier, the festival did not begin till the 20th of Khoiak, when the barley and the sand were put into the "garden" in the "House of Shenty." Then fresh inundation water was poured out of a golden vase over both the goddess and the garden and the barley was allowed to grow as the emblem of the resurrection of the god after his burial in the earth. "For the growth of the garden is the growth of the divine substance."

It is a far cry from the first primitive pan grave with its solitary offering to the overwhelmingly intricate mysticism of the Osirian rites. One cycle of the Osirian rites, one cycle of the Egyptian year, expresses one belief that underlies all Egyptian religion. Look back into the darkness of the past as we will, the evidence of offering and inscription, and we find the Egyptian steadily looking forward to an eternal future.